

Abstract

Extracts including a biologically active compound or combination of compounds derived from microorganisms isolated from mucus-producing organisms that respire at least partially through their skin. Rod-shaped bacteria isolated from the skin of salamanders and frogs are found to produce compound(s) which have antiviral, antitumor, antibacterial and antifungal properties. These compound(s) have an inhibitory effect on opportunistic human pathogens, including *Candida* sp., *Microsporum* sp., *Staphylococcus* sp., *Pseudomonas* sp., *Escherichia* sp, and *Enterococcus* sp, as well as on HIV strains and tumor cell lines.